

THE VOICE OF AN INDUSTRY

February 23, 2015

Subject: Support for House Bill 6739

To the Honorable General Assembly Members and Citizens of the State of Connecticut:

On behalf of the Plastics Pipe Institute (PPI), thank you for the opportunity to extend my support for House Bill 6739 AN ACT CONCERNING SPECIFICATIONS FOR PIPES USED BY THE DEPARTMENT OF TRANSPORTATION. The PPI is a trade association that represents raw material suppliers, manufacturers, equipment suppliers, and professional affiliates involved in the thermoplastic pipe industries. The PPI members are engaged in pipe infrastructure that is commonly used in water, gas, sewer, conduit, and drainage applications. We encourage pipe material competition in general as a way to achieve the most economic pricing and foster innovative solutions to infrastructure needs. Members of the Corrugated Plastic Pipe Association of the PPI are specifically involved with the specification, engineering, and proper manufacturing of pipes for storm drainage applications, such as those utilized by highway departments across the country. We are fully supportive of House Bill 6739 because it encourages competitive bidding for pipe systems on Connecticut Department of Transportation projects provided that the materials meet approved engineering standards.

Corrugated high-density polyethylene (HDPE) and polypropylene (PP) pipe are manufactured in diameters up to 60-inches for gravity flow drainage application. Increasingly, Departments of Transportation across the country are approving thermoplastic pipes for use in cross road culvert and adjacent storm sewer system applications. When used in competition with more traditional drainage pipe materials, the bid costs for all installed pipe types typically decrease. Installed costs are typically 10-30% higher when only one material is specified versus two or more competing materials.

Over the years, the number of traditional material suppliers has decreased through consolidation and because of the proven effectiveness of newer innovative materials like corrugated HDPE and PP. The proposed legislation would optimize competition, and thereby assure cost savings, by seeking alternatives to traditional materials where engineering principles allow. An environment of pipe material competition encourages the development of increasingly superior materials at more competitive costs.

PPI member companies manufacture corrugated HDPE and PP pipes that meet or exceed the material and performance criteria of AASHTO Standard Specifications M294 and M330, respectively. The AASHTO specifications for HDPE and PP pipes are a result of years of research sponsored by federal, state, and private sources. AASHTO material specifications set the most stringent expectations for a manufacturer to meet. DOT Materials Engineers from across the country routinely review the AASHTO specifications for all pipe material types. Therefore by adhering to the AASHTO material specifications, Connecticut DOT will be assured

of using pipe manufactured to the highest standards and the expectations across material types will be comparable.

In addition to having stringent material specifications, AASHTO's Load Resistance Factored Design (LRFD) methodology is the most comprehensive and conservative design process for corrugated plastic pipe. The LRFD design process uses numerous factors that compound in design process to produce safety factors well over 2.5 for corrugated plastic pipes. The detailed calculations within the design process vary between the various pipe material types as well as the resulting safety factors, but all pipe industries are accustomed to the LRFD design process and can produce calculations for review when requested by Connecticut DOT.

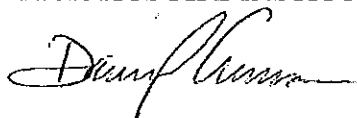
Similarly, AASHTO has construction standards for all pipe material types. The installation specifications can be found in AASHTO Sections 26, 27, and 30 for corrugated steel pipe, concrete pipe, and thermoplastic pipe, respectively. These installation practices are appropriate for pipe used beneath roadways and may be overly conservative for pipe installed in unpaved areas. Using AASHTO standards for all pipe types used by Connecticut DOT should result in consistently high quality installations, regardless of the pipe material.

HDPE and PP are some of the most durable pipe materials on the market today. There is nothing naturally occurring in the storm drainage water or in the soils surrounding the pipes that will degrade them. HDPE and PP are chemically inert and resistant across almost the entire pH range. Therefore, PPI is confident HDPE and PP pipes can demonstrate performance that exceeds the 50-year and at the 75-year expectations. Not every state establishes service life for pipe materials. When they do, in most cases, HDPE and PP receive the highest service life ratings. With Florida and Pennsylvania DOTs, HDPE and PP pipe have been assigned 100-year service life ratings. Other states, like New York DOT assign HDPE pipe a 75-year service life, their highest rating. By setting service life expectations as a criterion for pipe usage, Connecticut DOT will be assured that the materials selected will serve the State and riding public for years to come.

In conclusion, the Plastics Pipe Institute recommends support of House Bill 6739. Pipe material, design, and installation standards will be held to high level as established by thoroughly vetted AASHTO specifications. The opportunity for cost savings will be optimized through pipe material competition, and the competitive environment will continue to foster innovation.

The PPI will be happy to partner with the State to assure appropriate specification, design, and usage of our members' products. If you have any questions or require additional information, please contact me at (816) 916-3470.

Sincerely,
PLASTICS PIPE INSTITUTE



Daniel Currence, P.E.
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